

## Well Header

Field Name: NIOBRARA SHALE  
TD (All) (ftKB): Original Hole - 10,845.0

API/UWI: 05-123-34100-01  
TD All (TVD) (ftKB): Original Hole - 6,509.4

County: WELD  
Orig KB Elev (ft): 5,039

State/Prov: COLORADO  
Gr Elev (ft): 5,021

State Plane (X) (ft): 3,377,223  
Spud Date: 2012/02/27 22:00

State Plane (Y) (ft): 1,447,336  
Final TD Date: 2012/03/12 04:30

## Casing Strings

Csg Des: PRODUCTION  
Casing Components

Jts

Wellbore: Original Hole

Run Date: 2012/03/13

Set Depth (ftKB): 10,845

Stick Up (ftKB): -5,760.5

Centralizers:

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)
1 Polished Bore Receptacle	5.92		5.25	11.6	14.92	10,830.10	10,845.00
1 PPK Hanger / Packer		6	4	11.6	3.42	10,826.70	10,830.10
1 Centralizer		6	4	11.6 HCP-110	0.6	10,826.10	10,826.70
14 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	626.67	10,199.40	10,826.10
1 Swelling Packer 17	5 3/4		4	11.6 HCP-110	15.75	10,183.60	10,199.40
12 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	536.94	9,646.70	10,183.60
1 Swelling Packer 16	5 3/4		4	11.6 HCP-110	15.75	9,631.00	9,646.70
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	130.13	9,500.80	9,631.00
1 Frac Sub 16 3.3.75	5.42	3.266		11.6 HCP-110	3.3	9,497.50	9,500.80
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.8	9,407.70	9,497.50
1 Swelling Packer 15	5 3/4		4	11.6 HCP-110	15.75	9,392.00	9,407.70
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.67	9,257.30	9,392.00
1 Frac Sub 15 3.250	5.42	3.146		11.6 HCP-110	3.3	9,254.00	9,257.30
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	88.96	9,165.00	9,254.00
1 Swelling Packer 14	5 3/4		4	11.6 HCP-110	15.75	9,149.30	9,165.00
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.04	9,015.30	9,149.30
1 Frac Sub 14 3.125	5.42	3.018		11.6 HCP-110	3.3	9,012.00	9,015.30
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.81	8,922.10	9,012.00
1 Swelling Packer 13	5 3/4		4	11.6 HCP-110	15.75	8,906.40	8,922.10
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.71	8,771.70	8,906.40
1 Frac Sub 13 3.000	5.42	2.896		11.6 HCP-110	3.3	8,768.40	8,771.70
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	88.88	8,679.50	8,768.40
1 Swelling Packer 12	5 3/4		4	11.6 HCP-110	15.75	8,663.80	8,679.50
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.68	8,529.10	8,663.80
1 Frac Sub 12 2.875	5.42	2.77		11.6 HCP-110	3.3	8,525.80	8,529.10
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.83	8,435.90	8,525.80
1 Swelling Packer 11	5 3/4		4	11.6 HCP-110	15.75	8,420.20	8,435.90
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.41	8,285.80	8,420.20
1 Frac Sub 11 2.750	5.42	2.645		11.6 HCP-110	3.3	8,282.50	8,285.80
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.27	8,193.20	8,282.50
1 Swelling Packer 10	5 3/4		4	11.6 HCP-110	15.75	8,177.50	8,193.20
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	132.33	8,045.10	8,177.50
1 Frac Sub 10 2.625	5.42	2.52		11.6 HCP-110	3.3	8,041.80	8,045.10
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.88	7,952.00	8,041.80
1 Swelling Packer 9	5 3/4		4	11.6 HCP-110	15.75	7,936.20	7,952.00
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.79	7,801.40	7,936.20
1 Frac Sub 9 2.500	5.42	2.393		11.6 HCP-110	3.3	7,798.10	7,801.40
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.87	7,708.20	7,798.10
1 Swelling Packer 8	5 3/4		4	11.6 HCP-110	15.75	7,692.50	7,708.20
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.62	7,557.90	7,692.50
1 Frac Sub 8 2.3.75	5.42	2.393		11.6 HCP-110	3.3	7,554.60	7,557.90
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.83	7,464.70	7,554.60
1 Swelling Packer 7	5 3/4		4	11.6 HCP-110	15.75	7,449.00	7,464.70
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.57	7,314.40	7,449.00
1 Frac Sub 7 2.250	5.42	2.143		11.6 HCP-110	3.3	7,311.10	7,314.40
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.85	7,221.30	7,311.10
1 Swelling Packer 6	5 3/4		4	11.6 HCP-110	15.75	7,205.50	7,221.30
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.46	7,071.10	7,205.50
1 Frac Sub 6 2.125	5.42	2.02		11.6 HCP-110	3.3	7,067.80	7,071.10
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.19	6,978.60	7,067.80
1 Swelling Packer 5	5 3/4		4	11.6 HCP-110	15.75	6,962.80	6,978.60
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	130.52	6,832.30	6,962.80
1 Frac Sub 5 2.000	5.42	1.895		11.6 HCP-110	3.3	6,829.00	6,832.30
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.51	6,739.50	6,829.00
1 Swelling Packer 4	5 3/4		4	11.6 HCP-110	15.75	6,723.70	6,739.50
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.76	6,589.00	6,723.70
1 Frac Sub 4 1.875	5.42	1.771		11.6 HCP-110	3.3	6,585.70	6,589.00
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.89	6,495.80	6,585.70
1 Swelling Packer 3	5 3/4		4	11.6 HCP-110	15.75	6,480.00	6,495.80
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.78	6,345.30	6,480.00
1 Frac Sub 3 1.750	5.42	1.645		11.6 HCP-110	3.3	6,342.00	6,345.30
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.05	6,252.90	6,342.00
1 Swelling Packer 2	5 3/4		4	11.6 HCP-110	15.75	6,237.20	6,252.90
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.82	6,102.30	6,237.20
1 Frac Sub 2 1.625	5.42	1.522		11.6 HCP-110	3.3	6,099.00	6,102.30
2 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	89.82	6,009.20	6,099.00
1 Swelling Packer 1	5 3/4		4	11.6 HCP-110	15.75	5,993.50	6,009.20
3 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	134.67	5,858.80	5,993.50
1 Frac Sub 1 1.125	5.42	1		11.6 HCP-110	3.3	5,855.50	5,858.80
1 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	44.88	5,810.60	5,855.50
1 Float Collar	5		4	11.6 HCP-110	1	5,809.60	5,810.60
1 4 1/2" LTC Liner	4 1/2		4	11.6 HCP-110	44.6	5,765.00	5,809.60
1 Float Collar	5		4	11.6 HCP-110	1	5,764.00	5,765.00
1 Guide Shoe	5		4	11.6 HCP-110	3.5	5,760.50	5,764.00